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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,680	11/09/2001	Yoon San Park	0630-1356P	5799
2292	7590	03/09/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			SANTIAGO, MARICELI	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/986,680	PARK, YOON SAN <i>pw</i>	
	<b>Examiner</b>	<b>Art Unit</b>	2879
	Mariceli Santiago		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 November 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 3-10 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 3-10 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 09 November 2001 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

**DETAILED ACTION**

***Response to Amendment***

The Amendment, filed on November 4, 2003, has been entered and acknowledged by the Examiner.

Substitute Specification filed April 18, 2003 has been entered and acknowledged by the Examiner.

Cancellation of claim 2 has been entered.

Claims 1 and 3-10 are pending in the instant application.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Takayanagi (JP 10-199440, for purposes of rejection see English counterpart US 6,188,169).

Regarding claim 1, Takayanagi discloses a supporting frame structure for a tension-type shadow mask (Figs. 1A-1C) of a color CRT comprising first and second main frames (45 and 46), each having a portion for supporting a shadow mask, first and second sub frames (47 and 48) combined with the main frames for applying elastic force to the shadow mask, wherein a

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curvature of each one of the portions for supporting satisfies the equation  $\Delta R/R = 0.95-1.05$ , before the first and second main frames are compressed for supporting the shadow mask (Figs. 1C and 2A, Column 3, lines 16-25, constant radius R along the main frames), where R is a radius of curvature obtained by connecting a center and both ends of each one of the portions for supporting, and  $\Delta R$  is a radius of curvature obtained by connecting three arbitrary positions of each one of the portions for supporting.

Regarding claim 3, Takayanagi discloses a structure wherein one or more damper wires (43) of which respective ends are fixed to the first and second sub frames are attached to the shadow mask.

Regarding claim 4, Takayanagi discloses a frame for supporting a tension-type shadow mask (Figs. 1A-1C) of a color CRT comprising a pair of first frames (45 and 46), each having a portion for supporting a shadow mask, respectively, a pair of second frames (47 and 48) combined with the first frames for applying elastic force to the shadow mask, wherein the portions for supporting in the first frames have a single radius of curvature before the first frames are compressed (Figs. 1C and 2A, Column 3, lines 16-25, constant radius R along the first frames), for applying an elastic force to the shadow mask and supporting the shadow mask.

Regarding claim 5, Takayanagi discloses a frame wherein the radius of curvature of the portions for supporting satisfies the equation  $\Delta R/R = 0.95-1.05$  (Figs. 1C and 2A, Column 3, lines 16-25, constant radius R along the main frames), where R is a radius of curvature obtained by connecting a center and both ends of each one of the portions for supporting in the first frames, and  $\Delta R$  is a radius of curvature obtained by connecting three arbitrary positions of each one of the portions for supporting in the first frames.

Regarding claims 6 and 7, Takayanagi discloses a structure wherein one or more damper wires (43) of which respective ends are fixed to the second frames are attached to the shadow mask.

Regarding claim 8, Takayanagi discloses a frame for supporting a tension-type shadow mask of a color CRT (Figs. 1A-1C) comprising a pair of first frames (45 and 46), each having a portion for supporting a shadow mask, respectively, and a pair of second frames (47 and 48) combined with the first frames for applying elastic force to the shadow mask, wherein each of the portions for supporting in the first frames has inflection points where the curvature of the portions for supporting varies at peripheral portions thereof after the first frames are compressed (Figs. 1C and 2A, Column 3, lines 16-25), for supporting the shadow mask.

Regarding claim 9, Takayanagi discloses a frame wherein each of the portions for supporting in the first frames has the inflection points at peripheral portions thereof in a state that the shadow mask is supported on the portions for supporting in the first frames (Figs. 1C and 2A, Column 3, lines 16-25).

Regarding claim 10, Takayanagi discloses a frame where each of the portions for supporting in the first frames has a single radius of curvature in case that all the elastic forces applied to the first frames are removed (Figs. 1C and 2A, Column 3, lines 16-25, constant radius R along the first frames).

Claims 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Suganuma et al. (US 6,366,010).

Regarding claim 8, Suganuma discloses a frame for supporting a tension-type shadow mask of a color CRT (Figs. 1 and 6) comprising a pair of first frames (2 and 3), each having a portion for supporting a shadow mask, respectively, and a pair of second frames (4 and 5)

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combined with the first frames for applying elastic force to the shadow mask, wherein each of the portions for supporting in the first frames has inflection points (8A) where the curvature of the portions for supporting is varies at peripheral portions thereof after the first frames are compressed (Column 3, lines 20-30), for supporting the shadow mask.

Regarding claim 9, Suganuma discloses a frame wherein each of the portions for supporting in the first frames has the inflection points at peripheral portions thereof in a state that the shadow mask is supported on the portions for supporting in the first frames (Column 3, lines 20-30).

***Response to Arguments***

Applicant's arguments with respect to claims 1 and 2-10 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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***Other Prior Art Cited***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (571) 272-2464. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MS 314104  
Mariceli Santiago  
Patent Examiner  
Art Unit 2879

  
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